

**CLAIMS**

What is claimed is:

1. A static structure for a miniature gas turbine engine comprising:  
a forward housing;  
a diffuser housing mounted to said forward housing; and  
a combustor housing mounted to said diffuser housing.
2. The static structure as recited in claim 1, further comprising an exhaust pipe mounted to said combustor housing.
3. The static structure as recited in claim 1, further comprising a combustor liner mounted without fasteners between said diffuser housing and said combustor housing.
4. The static structure as recited in claim 1, further comprising a turbine nozzle mounted without fasteners between said diffuser housing and said combustor housing.
5. The static structure as recited in claim 1, further comprising a lubrication passage defined within said forward housing, said lubrication passage communicating with a rotor shaft bearing.
6. The static structure as recited in claim 1, further comprising a metering jet in communication with said lubrication passage.
7. The static structure as recited in claim 6, further comprising a rotor shaft driven pump which communicate a lubricant through said lubrication passage.
8. The static structure as recited in claim 1, further comprising a forward cover mounted to said forward housing.

9. The static structure as recited in claim 8, further comprising an airflow passage defined within said forward cover, said airflow passage communicating airflow toward a first and a second rotor shaft bearing.

10. A miniature gas turbine engine comprising:
  - a forward cover defining an airflow passage;
  - a forward housing defining a first and a second lubrication passage;
  - a diffuser housing mounted to said forward housing;
  - a combustor housing mounted to said diffuser housing;
  - a forward rotor shaft bearing mounted adjacent said forward housing;
  - an aft rotor shaft bearing mounted adjacent said forward housing; and
  - a rotor shaft rotationally mounted to said forward and aft rotor shaft bearings, said rotor shaft defining an axis of rotation;
  - said first lubrication passage for communication of a lubricant toward said forward rotor shaft bearing;
  - said second lubrication passage for communication of said lubricant toward said aft rotor shaft bearing;
  - said airflow passage for communication of airflow generally parallel to said axis of rotation from said forward rotor shaft bearing toward said aft rotor shaft bearing.
11. The engine as recited in claim 10, further comprising a metering jet within said forward housing and within each of said first and said second lubrication passage.
12. The engine as recited in claim 10, further comprising a metering jet upstream and in communication with each of said first and said second lubrication passage.
13. The engine as recited in claim 10, further comprising a pump driven by said rotor shaft to communicate a lubricant through said first and second lubrication passage.
14. The engine as recited in claim 10, further comprising an exhaust pipe welded to said combustor housing.

15. The engine as recited in claim 10, further comprising a combustor liner mounted without fasteners between said diffuser housing and said combustor housing.

16. The engine as recited in claim 10, further comprising a turbine nozzle mounted without fasteners between said diffuser housing and said combustor housing.